

GRAVES (S. C.)
5

A CASE OF ABDOMINAL NEPHRECTOMY:

With Practical Lessons Thereon.

BY

SCHUYLER C. GRAVES, M.D.,

VISITING SURGEON TO ST. MARK'S AND THE U. B. A. HOSPITALS,
GRAND RAPIDS, MICHIGAN.

FROM

THE MEDICAL NEWS,

September 24. 1892.





A CASE OF ABDOMINAL NEPHRECTOMY:

*With Practical Lessons Thereon.*¹

BY SCHUYLER C. GRAVES, M.D.,

VISITING SURGEON TO ST. MARK'S AND THE U. B. A. HOSPITALS,
GRAND RAPIDS, MICHIGAN.

It is not my purpose to present an exhaustive paper on the subject of nephrectomy. I desire, on the contrary, to report, simply and briefly, the history of a successful case that has occurred in my practice.

Let the fact, then, that the operation is one of considerable interest to surgeons, on account of its comparative rarity and the high mortality-rate with which it is associated, be my excuse for making this report.

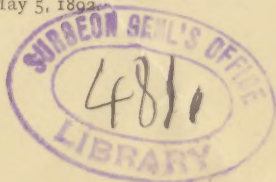
The case presents several features of peculiar interest in pointing a moral that, I trust, may spare others many moments of anxiety, which it has been my unfortunate lot to experience.

Mrs. C. S., twenty-nine years old, eight weeks after the birth of her only child, a boy of about seven, noticed a lump in the left side, as large as the palm, and not painful except upon pressure.

Dr. Martin, the first physician consulted, saw the case one and one-half years after the tumor had been discovered. He came to the conclusion that the tumor was splenic, and prescribed tonics and applied the galvanic current.

The patient states that the tumor seemed to grow

¹ Read before the Surgical Section of the Michigan State Medical Society, at Flint, Michigan, May 5, 1892.



smaller during the year of current treatment, but increased in size as soon as the treatment was withdrawn.

The patient then had no particular treatment for about two years, at the expiration of which time she consulted Prof. McGraw, at Detroit. Dr. McGraw made a diagnosis of enlarged and dislocated spleen, and recommended non-interference. He declined operating and advised the patient to return home, giving her, at the same time, some medicine which he said he hoped would check the growth of the tumor. He did a perineorrhaphy upon the patient, however, before she left the Detroit hospital, in the hope of building up a somewhat shattered constitution. This was about two years ago.

Time went on, and no particular change was noticeable in the tumor or in the general health.

In January of the present year the patient fell into the hands of Dr. B. J. Zudzensen, of Sparta, Kent Co., Mich., who kindly referred the case to me.

During all of these years the health of Mrs. S. had been feeble; constipation had been the rule; the appetite was at times poor and then abnormally great; she slept badly for weeks at a time; the menstrual functions were normal.

There was no suspicion on the part of the patient that any renal trouble existed; she seemed to pass as much water of normal character as ever. At times the tumor was painful.

When I first saw Mrs. S. she presented a somewhat cachectic appearance, though not at all suggestive of malignant trouble. She was thin and tall ("long for this world," as she expressed it); her weight was in the neighborhood of one hundred pounds.

A solid, movable tumor about the width, length, and shape of an adult hand, lay within the abdominal cavity, on the left side under the linea semilunaris and opposite the umbilicus. The tumor could be pushed upward almost completely behind the ribs, and was also

quite freely movable laterally, as well as downward. The abnormality was evidently one of five things: 1. A floating spleen, diseased or not. 2. A diseased and dislocated kidney. 3. A benign neoplasm, or an inflammatory thickening of walls of the colon. 4. Fecal impaction. 5. A tumor of the omentum.

Repeated and unavailing bowel-washings, with large quantities of warm water twice daily, excluded the possibility of fecal impaction, and the analysis of the urine seemed, except in one particular, to indicate no trouble with the kidneys, as the following report will show:

Urinalysis. Mrs. C. S., January 25, 1892 (three days before operation).

1. Quantity (in twenty four hours), thirty ounces.
2. Specific gravity, 1020.
3. Color, amber.
4. Odor, normal.
5. Reaction, acid.
6. Albumin, absent.
7. Sugar, absent.
8. Deposits, absent.
9. Microscopic examination, scattered epithelial cells from the bladder.

The exception referred to is the twenty-four hour quantity, being thirty ounces instead of forty-eight. This is merely a relative matter, and would not excite suspicion unless it proved to be a constant factor.

No evidence of leukocythemia was present.

The woman was anxious to be relieved. She was informed that one of the five conditions already noticed existed; fecal impaction was excluded; a positive diagnosis could only be speedily and accurately made by opening the abdominal cavity and exposing the tumor to sight and touch.

To this proposition the patient readily assented, with the understanding that should anything be found the removal of which would prove extremely dangerous to

life, it would be left *in situ*, provided, of course, that its removal was not rendered necessary in order to save her life.

Under these circumstances the operation was undertaken on January 28, 1892, at the U. B. A. Hospital.

After the usual antiseptic preparations, the abdominal cavity was opened by an incision, four inches long, in the left linea semilunaris (Langenbeck's incision) and the tumor was soon exposed. It was almost immediately recognized as the left kidney, which had undergone multiple cystic degeneration. Notwithstanding its previous mobility, a goodly number of adhesions were encountered in its removal, which, however, was quickly decided upon and easily accomplished, the vessels and the ureter being separately ligated with aseptic, braided silk, cut short and dropped into the peritoneal cavity. No notable hemorrhage occurred. A lumbar incision was then made into the abdominal cavity and a large rubber drain inserted and stitched to the integument.

The abdominal incision was closed as follows: The peritoneum was united by a continuous suture of fine, iron-dyed silk, supposed at the time to be aseptic; and the rest of the wound by interrupted sutures of silk-worm-gut, which, of course, went down to, but not through, the peritoneum. Antiseptic dressings were applied and one-quarter of a grain of morphine exhibited hypodermatically. The operation occupied about three-quarters of an hour. There was no shock. On the second day tympanites occasioned great distress. The abdomen was tender to touch, but no vomiting had occurred. The temperature was about 100°, the pulse about 100. Opiates were strictly avoided and the patient was placed upon teaspoonful doses of a saturated solution of salts hourly, which, after a few hours, were assisted by enemata of turpentine, glycerin, and soap-suds. This combination, repeated a few times, brought away all of the gas, and in twenty-four hours the belly

was flat again and the tenderness gone. From that time, throughout the length of the illness, not the slightest intra-abdominal complication occurred.

The silkworm-gut stitches were removed on the ninth day. The wound was healed, but looked elevated, and the neighboring tissues were somewhat indurated. On the tenth day, the temperature rising to 101.6° and the wound area feeling more indurated, the line of incision was broken up to the extent of an inch and a pus-pocket exposed. The tip of the little finger introduced into the wound passed through the peritoneum, but nature had evidently walled up the peritoneal side of the incision, either by lymph or by a fold of omentum, for no intra-peritoneal trouble was present nor did any develop subsequently. On the next morning the temperature and pulse had dropped to normal. In a few days, the temperature rising again, under the belief that the peritoneal silk suture was the sole cause of the mischief, I had chloroform administered, and broke open the wound in its entire extent in search of the suture. A portion of it was found, partially loosened, and caught with forceps. Considerable traction failing to deliver it, and lymph and other inflammatory matters so obscuring the view, it was deemed wiser to keep the wound open and await developments, inasmuch as there was great danger of breaking through the peritoneum and lymph-wall, the extreme thinness of which was very evident to the sense of touch. After several days of waiting, the temperature suddenly mounted to 103.6° , and the pulse to 116. The patient was again anesthetized and the offending suture, considerably looser than before, was removed entirely. The wound smelled foul and was packed with a mixture of iodoform and boric acid after irrigation with mercuric chloride solution (1 : 500), and left open. Mercuric chloride, gr. $\frac{1}{30}$, was administered every four hours, together with a nutrient tonic.

For several days the temperature fluctuated between

100° and 102°, and the patient perspired freely whenever she fell asleep. This perspiration was looked upon as an effort on the part of nature to eliminate a poison, and was not interfered with. No chill occurred during the entire illness. The appetite remained excellent; the tongue moist; the disposition cheerful, and sleep refreshing. The condition gradually improved.

About three weeks after the operation the temperature ranged considerably higher every other day, and this feature became the regular order of affairs. A malarial element seemed present; but the patient had never had any form of malarial fever, although she had for years resided in a swampy country.

Treves, in his recent work¹, writing about the relation between surgical operations and malaria states that, "In a patient who has never had intermittent fever—but who has formerly resided in a malarial district—the wound may apparently give rise to intermittent fever or to intermittent complications," on the theory that "the injury has merely provoked the explosion of a hitherto latent disease."

This seems to have been the case with my patient. At any rate, large doses of quinine had a marked effect upon the character of the manifestations.

At about this time the patient's urine was noticed to have a very strong odor and to be muddy in appearance. Analysis showed the urine to be of a neutral reaction (not alkaline), and to contain triple phosphates in enormous quantity, scattered pus-cells and large numbers of bacteria. The patient was put upon ammonium benzoate (15 grains every four hours), which was gradually diminished in quantity as the urine cleared up and became acid. This it speedily did, urinalysis, in a few days, showing no crystals of triple phosphates. Pus, however, continued to be present in small quantities, occasionally being sufficient to afford a slight trace of albumin.

¹ Manual of Operative Surgery, vol. i, p. 16.

The last urinalysis, on March 11, 1892, showed still a few pus-corpuscles and scattered epithelial cells from the bladder and ureter.

One other feature of interest is worthy of record. Late in the progress of the case the temperature again suddenly ascended, causing considerable consternation. The cause was finally located in the iodoform mixture which, after non-use for a couple of weeks, had been spread over the granulations on the surface of the wound and had undergone absorption. Bearing upon this point, I quote from Brunton:¹ "In man it (iodoform) may be absorbed from wounds and affect the nervous system, but instead of producing sleep or anesthesia, as in dogs, it usually causes, in slight cases of poisoning, sleeplessness, headache, irritability, and loss of memory."

My patient complained of a bad taste, palpitation of the heart, headache, mental sluggishness, and sleeplessness; but in her case there was a very decided rise of temperature. Brunton does not refer to this latter manifestation; but Shurly, of Detroit, states that in his iodine injections for tuberculosis there is always a marked thermal rise.

The iodoform was withdrawn and the wound again dressed with plain boric acid, and in twelve hours the temperature had fallen to 99°.

The patient sat up on the twenty-eighth day. In a few days, she was wheeled about the corridor in a convalescent chair, and was soon walking unaided about the hospital. She left the city for her home on March 12th, six weeks after the date of arrival.

As to the status of the other kidney, inasmuch as multiple nephritic cystoma is very likely to be bilateral, the chances are against the maintenance of its integrity. At the time of the patient's departure the organ could be felt and easily handled, and seemed to be in fair condi-

¹ Pharmacology, Therapeutics, and Materia Medica, 3d edition, p. 805.

tion. The same amount of urine was passed as before operation, proving the complete demoralization of the diseased kidney.

A mineral water was recommended for use at home, and urinalyses made since the departure of the patient have shown a continued improvement so far as the urine is concerned. Otherwise the patient is doing exceedingly well, gaining in strength daily, and being occupied more and more in her household duties. In a recent letter she states that she feels splendidly.

In conclusion, I desire to record four practical lessons that this case teaches :

First. The efficacy and value of salts and turpentine in the treatment—particularly the early treatment—of traumatic peritonitis.

Second. The danger of peritoneal suturing as such. (Use silkworm-gut and pass it through the entire thickness of the abdominal wall.)

Third. The possible revival of ancient or lateral paludism in your operations.

Fourth. The susceptibility of patients to the action of iodoform when spread upon a granulating wound-surface.

The Medical News.

Established in 1843.

A WEEKLY MEDICAL NEWSPAPER.

Subscription, \$4 00 per Annum.

The American Journal

OF THE

Medical Sciences.

Established in 1820

A MONTHLY MEDICAL MAGAZINE.

Subscription, \$4.00 per Annum.

COMMUTATION RATE, \$7 50 PER ANNUM.

LEA BROTHERS & CO.

PHILADELPHIA.